OVERVIEW OF GALILEO EUROPA MISSION

Torrence V. Johnson (Jet Propulsion Laboratory, Caltech, Pasadena, CA, USA)
TJOHNSON@JPLTVJ.JPL.NASA.GOV

Galileo completed its primary mission at Jupiter in December 1997. Extended operations are now planned through December 1999, referred to as the Galileo Europa Mission (GEM). GEM consists of three phases, each with a specific scientific focus: 1) Europa Phase – eight close encounters, with the last in January 1999, focusing on high resolution remote sensing and in situ studies of the satellite – magnetosphere interaction. 2) Perijove Reduction Phase – four encounters with the primary purpose of lowering the spacecraft's periapsis to permit close flybys of Io. During this phase the spacecraft also makes progressively deeper penetrations of the Io plasma torus. 3) Io Phase – two close encounters with Io, one equatorial, one polar, permitting very high resolution remote sensing, gravitational field and magnetospheric interaction observations. Limited Callisto and atmospheric observations are also included on some orbits. The first phase of GEM has already been extremely successful. Highlights of scientific results and plans for the next phases will be reviewed. This work was done at Caltech" Jet Propulsion Laboratory under a contract from NASA.

OVERVIEW OF GALILEO EUROPA MISSION

Torrence V. Johnson (Jet Propulsion Laboratory, Caltech, Pasadena, CA, USA)
TJOHNSON@JPLTVJ.JPL.NASA.GOV

Galileo completed its primary mission at Jupiter in December 1997. Extended operations are now planned through December 1999, referred to as the Galileo Europa Mission (GEM). GEM consists of three phases, each with a specific scientific focus: 1) Europa Phase – eight close encounters, with the last in January 1999, focusing on high resolution remote sensing and in situ studies of the satellite – magnetosphere interaction. 2) Perijove Reduction Phase – four encounters with the primary purpose of lowering the spacecraft's periapsis to permit close flybys of Io. During this phase the spacecraft also makes progressively deeper penetrations of the Io plasma torus. 3) Io Phase – two close encounters with Io, one equatorial, one polar, permitting very high resolution remote sensing, gravitational field and magnetospheric interaction observations. Limited Callisto and atmospheric observations are also included on some orbits. The first phase of GEM has already been extremely successful. Highlights of scientific results and plans for the next phases will be reviewed. This work was done at Caltech" Jet Propulsion Laboratory under a contract from NASA.